

RECEIVED

DEC 1 7 2002

Technology Center 2600

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re application of:

URIU, et al.

Examiner: T. Nguyen

Group Art Unit: 2832

Serial No.: 09/525,247

Filing Date: March 15, 2000

For: INDUCTOR AND METHOD FOR PRODUCING THE SAME

DECLARATION UNDER 37 CFR \$1.132

Date: 11 December, 2002

Assistant Commissioner for Patents Washington, DC 20231

Dear Sir:

- 1. I, Eiichi URIU, have the following postal address: 2-17-5, Higashikori, Hirakata-shi, Osaka, Japan.
- 2. I graduated from Osaka University, Japan, in 1984 with a Bachelors degree in Engineering.
- 3. I have been employed by Matsushita Electric Industrial Co., Ltd. Since 1984. I have been engaged in the research of lamination ceramic chip inductors, which is the subject matter of the above-identified application, since 1994. I am one of the inventors of the invention of the above-

DEC 20 2002
TECHNOLOGY CENTER 280C

identified application, and I am fully familiar with the subject matter thereof.

- 4. Based on my understanding of general knowledge in the field of lamination ceramic chip inductors, I provide the following explanation of the meanings of terms used in my previous declaration dated March 7, 2002, as would have been apparent to one skilled in the art at the time the original application (parent of the present case) was filed (October 4, 1994).
- 5. Fine, as in a fine conductive pattern, is understood to mean a thin, even pattern without irregularities such as zig-zagged edges or discontinuities in the pattern. As explained in my previous Declaration dated March 7, 2002, a zig-zag (not fine) pattern is caused by printing a line with a pitch of 50 microns through a mesh with high pressure, which results in the edges of the pattern not being straight.
- 6. Continuous, as in a continuous conductive pattern, is understood to mean that the lines in the pattern are substantially free of discontinuities. A continuous pattern is distinguished from a discontinuous pattern in which the lines have many discontinuities. As explained in my previous Declaration dated March 7, 2002, a discontinuous pattern is caused by printing a line with a pitch of less than 50 microns through a mesh; mesh fibers correspond to discontinuities.

- 7. The term "no specific gap" as in no specific gap between the conductive pattern and the insulation layers, means that the conductive pattern and the insulation layers are substantially in contact. "No specific gap" distinguished from a "specific gap" which is a gap of about 2-5 microns between the conductive pattern As explained in my previous Declaration insulation layers. dated March 7, 2002, a specific gap is caused in a printed conductive pattern as a result of shrinkage conductive layer after evaporation of binder and solvent form the conductive paste used for printing.
- 8. Blurred, as in blurred edges of a conductive pattern, means that the edges of lines in a conductive pattern are not sharp (substantially perpendicular to the substrate) but spread out away from the lines. "Not blurred" is distinguished from blurred and is characterized by sharp, fine edges. As explained in my previous Declaration dated March 7, 2002, blurring is caused by build-up of conductive paste after repeated printing using the same mesh and emulsion.

I further declare that all statements made herein of my own knowledge are true and all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like are punishapble by fine or imprisonment, or both, under Secion 1001 of Title 18 of the

United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Executed on $\underline{\mathcal{D}ec. 2}$, 2002

(Eiichi URIU)

Eichi Uriu